Appendix A

To
Memorandum of Agreement (MOA) FNA/08-00-02
Concerning

Aviation Research Coordination and Integration

I. Purpose

This Appendix documents the initial activities under this MOA for providing expert technical support to, and integration of, NASA Langley Research Center (LaRC) research activities with the FAA William J. HughesTechnical Center's (WJHTC) activities in the following areas:

- 1. Development and proof of new concepts in air traffic management,
- 2. Data link infrastructure integration into current and future NAS,
- 3. Concepts and ideas on increasing utilization of existing underutilized airspace and landing facilities,
- 4. Small aircraft technologies and applications,
- 5. Representation and understanding of the FAA's mode of operation and methods during NASA program planning,
- 6. Presentation of FAA and NASA program planning concepts to various audiences to gage readiness of planning activities,
- 7. Analysis of new NASA program planning concepts,
- 8. Strategic transfer of programmatic concepts and implementation activities, and
- 9. Other support as may be deemed mutually constructive.

This Appendix also specifically supports cooperation between the FAA and NASA on the emerging Small Aircraft Transportation System (SATS) Program and in other areas of research in accordance with the following NASA/FAA cooperative agreements:

- 1. Memorandum of Understanding (MOU) FNA 08 for Aviation Safety Research, dated July 2, 1999.
- 2. Memorandum of Agreement (MOA) FNA/08-00-01 concerning Weather Accident Prevention R&D Activities, dated June 27, 2000.
- 3. Memorandum of Agreement (MOA) FNA/05-97-01 concerning support of FAA R&D Field Offices at NASA Research Centers, dated March 12, 1997.

4. Interagency Agreement DTFA01-97-Z-02031 for the transfer of funds between DOT/FAA and NASA concerning support of the FAA R&D Field Office at the NASA Langley Research Center, dated July 15, 1997.

II. Background

The FAA WJHTC provides significant research and technology integration support for maintaining and enhancing performance of the National Airspace System (NAS). NASA LaRC conducts a wide range of aeronautics, weather, and air traffic control research in support of national aviation safety, capacity, and efficiency goals. The Inspectors General of the two agencies have recommended that a closer, collaborative relationship be fostered between the agencies and particularly between the WJHTC and LaRC. FAA's NAS Architecture and related research programs are developing products that will be shared among ground and airborne users for collaborative decision making. NASA's SATS and Aviation Safety (AvSP) Programs, among other activities, will develop and integrate a range of new technologies that will significantly change the way air traffic and airspace are managed. The resulting system will be more dependent than today's system on accurate, timely, and intuitive information being available to pilots, dispatchers, and air traffic controllers. The technologies being developed will enable collaborative decision making and will propel new paradigms of separating and sequencing aircraft. They will provide opportunities to exploit technology solutions to enhance NAS safety, capacity, and efficiency and will lead to new system-wide access and mobility for the American public.

In order for the two agencies to optimize collaboration as partners and to exploit resources available for these critical activities, the FAA (WJHTC) will provide expertise and technical support to NASA LaRC and to the SATS Program. This collaboration will require dedicated resources from both the FAA and NASA to support development of technologies. FAA resources may include, but not be limited to, personnel assignments to NASA for the purpose of coordinating the development and transfer of technologies and research information. NASA resources may include, but not be limited to, equipment and funding to facilitate technical support, interaction, and collaboration with the FAA. Initially, this task will require an FAA personnel assignment to the NASA General Aviation Program Office located at NASA Langley Research Center, Hampton, Virginia, to work with the SATS Planning Team during the time period October 1, 2000, through the end of Fiscal Year 2005.

III. Statement of Work

The FAA Technical Center will provide support services through the assignment of an FAA employee to NASA LaRC. These services will include, but not be limited to: representing the interests of the FAA Technical Center, serving as the

principal point of contract for information to be exchanged between the Technical Center and LaRC, facilitating the transfer of technolgy between the centers and to others, as appropriate, and serving as the FAA Lead at LaRC for development and integration of the SATS concept in joint FAA/NASA planning.

The incumbent will be a full-time resident at Langley Research Center in Hampton, Virginia, during the performance of duties related to this assignment.

A. Funding:

NASA LaRC agrees to reimburse the FAA for the support services to be provided under this Annex, as indicated below, to support the research requirements related to this activity. These funds will be transferred to FAA on an annual basis via a NASA purchase order (with an appropriate statement-of-work included, when required).

| FY-2001 | \$137,500 |
|---------|-----------|
| FY-2002 | \$141,500 |
| FY-2003 | \$145,500 |
| FY-2004 | \$149,500 |
| FY-2005 | \$153,500 |

B. Deliverables:

Deliverables include periodic reports and technical summaries, facilitation of communications and meetings between FAA WJHTC and NASA LaRC, inputs to NPG 7120.5A Program Planning documentation, concept papers, and a variety of oral presentations. This Agreement is in concert with recommendations from both the DOT/FAA and NASA Inspector General offices to further the collaboration and cooperation that exists between the two agencies.

C. Period of Performance:

This assignment will be in effect for the period October 1, 2000, through September 30, 2005, or for the period specified in Article VIII of the MOU, whichever period expires first.

D. Point of Contact:

The SATS Program Office point of contact for this appendix is

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